1887.] NATURAL SCIENCES OF PHILADELPHIA.

April 4, 1887, Upon the anatomy of the sexual apparatus of the Bee, by Prof. J. A. Ryder.

April 4, 1887. Description of a new Microtome for making large sections of the brain etc., by Prof. J. A. Ryder.

April 18, 1887. The hearing organ of Mysis flexuosa, by by Harold Wingate.

April 18, 1887. Hemiarcyria serpula, by Dr. George A. Rex.

April 18, 1887. Structure of the leaf of Deutzia, by Dr. J. B. Brinton.

April 18, 1887. Anatomy of the leg of the Honey Bee, by Dr. L. Brewer Hall.

April 18, 1887. The making of wax cells, by John C. Wilson. June 6, 1887. Karyokinesis, by Prof. J. A. Ryder.

September 19, 1887. The evolution of an eight-limbed vertebrate, by Prof. J. A. Ryder.

September 19, I887. The warts upon the legs of the Horse, by Prof. Harrison Allen.

October 3, 1887. The development of the ovum in the Field Mouse, by Prof. J. A. Ryder.

October 17, 1887. Placentation in animals, by Prof. J. A. Ryder.

On October 17, a course of lectures to be delivered during the winter was arranged by the lecture committee. The first one by Prof. J. A. Ryder upon "The two great Plans of Animal Organization" was given in the hall of the Academy Monday, November 21, 1887.

Very respectfully,

ROBERT J. HESS,

Recorder.

REPORT OF THE CONCHOLOGICAL SECTION.

The Recorder of the Conchological Section respectfully reports that during the year past, such Conchological papers as have been accepted have been published by the Academy as heretofore.

The Section has lost by death, one member, Isaac Lea, LL.D. who died in last December at the advanced age of ninety four years. At a special meeting of the section held Dec. 14th, 1886 the following minute was adopted and by direction transmitted to his family. "The Republic of Natural Sciences has lost a generous friend and an efficient workman by the death of Dr. Isaac Lea. His services to the Academy of Natural Sciences of Philadelphia, have extended through seventy-one years from June 1815. He was one of the founders of the Conchological Section, Dec. 1866, and was its first Director. During a period of over fifty years he gave his time and talents, his labor, influence and money in aiding the progress of Conchology in its several departments and especially in that of the fresh water mollusks. In this he was leader and master, and among the first in authority. His name is conspicuous wherever Conchology is studied on account of the valuable services he has rendered in this department of the Natural Sciences.

His happy life was prolonged far beyond the common lot. We sincerely deplore his loss. Our sympathies are with his family. We place this record on our minutes in testimony of our sense of his high and in every respect exemplary character and conduct."

Mr. G. W. Tryon Jr., Conservator, reports as follows :----

"The presentation by Mrs. Susan D. Brown of Princeton N. J., of the extensive and valuable collection of pulmoniferous land shells made by her late son Albert D. Brown is the principal event in the history of our section during the year. Mr. Brown, a well known conchologist and one of the founders of this Section, by devoting his attention to a single great group of the mollusca succeeded in amassing a collection which, for the completeness of its suites and beauty of arrangement ranked easily among the best in the world. His mother, anxious to place these treasures where they would be most useful, offered them to us subject to no restriction whatever.

Upon consideration of the extent and condition of the collection, your conservator decided that no portion of the mounted series should be excluded from our cases; for although we already possessed a large proportion of the species, the localities were in most cases different, and the specimens frequently much finer than ours. Hundreds of the species were, however, new to us. The mounting and labelling of the Brown shells was confided to Mr. Frank Stout, and this duty, which has occupied his time for the major portion of the year, has been very acceptably performed. The collection numbers 5404 trays and labels, containing 19,593 specimens. Mrs. Brown also presented the fine microscope used by her late son. A suitable inscription has been engraved upon this instrument, which is intended for the use of members of the section and conchological students generally.

[1887.

1887.] NATURAL SCIENCES OF PHILADELPHIA.

Other important accessions include suites of the land shells of China from B. Schmacker and Rev. M. Heude, those from the latter being a set of his types, a collection of Philippine and two of Polynesian shells obtained by purchase, a series of the shells dredged in southern American waters by Dr. Wm. H. Rush, U.S. N. including a number of recently described new species, a collection from Canton, Ills. from J. Wolf, and a large collection of Iowa shells from B. Shimek. Our American suites have continued to be enriched, as heretofore, by the gifts of numerous friends. In all 47 additions from 31 sources have been made aggregating 739 lots and 3699 specimens (see Additions to Museum.) These have all been labelled and are incorporated in the collection which now embraces 51,327 trays and labels and 189,150 specimens."

Five members and fourteen Correspondents have been elected during the year.

No changes have been made in the By-Laws of the section. The officers for 1888 are:—

| Director, . | | W. S. W. Ruschenberger. |
|----------------|------|-------------------------|
| Vice-Director, | | John Ford. |
| Recorder, . | | S. Raymond Roberts. |
| Secretary, . | | John H. Redfield. |
| Treasurer, . | | Wm. L. Mactier. |
| Librarian, . | | Edward J. Nolan. |
| Conservator, | | Geo. W. Tryon, Jr. |
| D | 0 11 | |

Respectfully submitted,

S. RAYMOND ROBERTS,

Recorder.

REPORT OF THE ENTOMOLOGICAL SECTION.

The Recorder of the Entomological Section, would state that the year now closing, has been one of advanced success. The meetings have shown a marked improvement in the attendance of the members, also in the increased interest in the proceedings.

Much valuable information to Entomologists has been given, through the remarks and addresses made by those present. Dr. Horn has especially studied to assist all who were interested in the special branch of Coleoptera. The section has held seven meetings in the year, at which various entomological matters have been discussed.

421